

**REMARKS**

**I. Introduction**

Claims 3-27 are currently pending. Claims 3-7, 15-17 and 20-26 were withdrawn by the Examiner following Applicants election in response to a Restriction Requirement. Claim 27 has been amended and is supported by original claims 1 and 2 and throughout the specification, for example in FIGS. 2 and 3. Withdrawn claim 26 has been amended to correct an informality.

No new matter has been added. In view of the foregoing amendments and the following remarks, Applicants respectfully submit that the claims are allowable and the application be passed to issue.

**II. Claim Objections**

Claim 26 was objected to for having an improper identifier and depending from a canceled claim. The amendment to claim 26 obviates the objection and therefore withdrawal of the objection is requested.

**III. Claim rejections under 35 U.S.C. § 102(b)**

Claims 27, 11, 13, 14 and 18 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Japanese patent document 10-110887 Tanimoto. Applicants respectfully disagree. However, in an effort to expedite prosecution, independent claim 27 has been amended and now recites, in pertinent part,

**wherein the first and second enveloping members are heated and pressed to seal the entire core member between said first and second enveloping members . . . wherein said border region seal has a shape that corresponds to the periphery of the core member, and wherein the entire portion of the first and second enveloping members adhering to each other is heated and fused.**

This configuration is shown, for example, in FIGS. 2 and 3 of the instant specification.

FIG. 3 shows a vacuum heat insulator comprising first (12a) and second (12b) gas barrier enveloping members and a flat core member (11). Each of enveloping members (12a and 12b) comprise heat seal layers and the *entire* core member (11) is evacuated and sealed *between* the first and second enveloping members (12a and 12b). The first and second enveloping members (12a and 12b) are shown in FIGS. 2 and 3 to be fused together along portions where no core member is between the enveloping members (13) and a border region seal is formed by the portions of the first and second enveloping member where the core member is disposed between the first and second enveloping member and the portion where the core member is not disposed. This border region seal has a shape that corresponds to the periphery of the core member (11) and the entire portion of the first (12a) and second (12b) enveloping members adhering to each other is heated and fused.

Furthermore, the configuration as recited in amended claim 27 maintains that all portions of the core member and the enveloping members are heated and fused. This ensures a tight seal around the core member and reduces use of extraneous enveloping member material.

Anticipation under 35 U.S.C. § 102 requires that “all of the elements and limitations of the claim must be shown in a single prior reference, arranged as in the claim”. *In re Buszard*, 504 F.3d 1364, (Fed Cir. 2007). At a minimum, Tanimoto does not disclose a configuration in **“wherein said border region seal has a shape that corresponds to the periphery of the core member, and wherein the entire portion of the first and second enveloping members adhering to each other is heated and fused,”** as recited in claim 27

Tanimoto (JP10-110887) discloses, in FIG. 1, a vacuum heat insulator comprising a plurality of core materials (2), wherein the core materials (2) are evacuated in a bag of an outer

covering material (3) and sealed, and then the outer covering materials are heated and sealed at the discontinuous part of the core material in order to form independent vacuum parts, (see abstract). Tanimoto does not disclose that the entire portion of outer covering material (3) is heated and fused to the core material and to another outer covering material, as now recited in amended claim 27.

Therefore, except for the discontinuous parts of the core material, the rest of the core material merely adheres to the outer covering material and is not heated and sealed. Thus, Tanimoto does not disclose all of the elements of claim 27.

Accordingly, claim 27 is allowable over Tanimoto. Furthermore, claims 8-14, 18, and 19 depend from and further define the subject matter of claim 27 and, therefore, are also allowable.

### **III. Claim Rejections Under 35 U.S.C. § 103(a)**

#### **Tanimoto in view of Miyoshi**

Claims 8-10 were rejected 35 U.S.C. § 103(a) as allegedly being unpatentable over Tanimoto in view of Miyoshi (JP 8-303686). Applicants respectfully disagree.

As discussed above, in reference to the rejection of claim 27 under 35 U.S.C. § 102(b), Tanimoto fails to disclose a configuration “wherein the first and second enveloping members are heated and pressed to seal the entire core member between said first and second enveloping members . . wherein said border region seal has a shape that corresponds to the periphery of the core member, and wherein the entire portion of the first and second enveloping members adhering to each other is heated and fused,” as recited in claim 27.

On page 3 of the Office Action mailed August 11, 2009, the Examiner relies on Miyoshi for providing a hole through a vacuum insulation product.

However, Miyoshi fails to cure the deficiencies of Tanimoto because, at a minimum, Miyoshi also fails to teach or suggest a configuration in which a border region seal has a shape that corresponds to the periphery of a core member, and wherein the entire portion of first and second enveloping members adhering to each other is heated and fused, as recited in claim 27.

In contrast, Miyoshi discloses a vacuum heat insulator comprising a core material having a through hole and a cutout, wherein the core material is evacuated in the bag of an outer covering material and sealed, and then the outer covering material of the through hole and the cutout is heat-sealed.

Thus, at least the part of the core material, except for the through hole and the cutout, merely adheres to the outer covering material and is not heated and sealed.

Therefore, it is clear that none of the cited prior art references either alone or in combination, teach or suggest all of the elements of claim 27.

Accordingly, claim 27 is allowable. Furthermore, claims 8-14, 18 and 19 depend from and further define the subject matter of claim 27 and, therefore, are also allowable.

### **Tanimoto in view of Stroobants**

Claim 12 was rejected under 35 U.S.C. § 103(a) under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tanimoto in view of Stroobants (U.S. 6,322,743). Applicants respectfully disagree.

As discussed above, in reference to the rejection of independent claim 27 under 35 U.S.C. § 102(b), Tanimoto fails to disclose a configuration “wherein the first and second enveloping members are heated and pressed to seal the entire core member between said first and second enveloping members. . . wherein said border region seal has a shape that corresponds to the

periphery of the core member, and wherein the entire portion of the first and second enveloping members adhering to each other is heated and fused," as recited in claim 27.

On page 4 of the Office Action mailed August 11, 2009, the Examiner relies on Stroobants for teaching the desirability of applying heat and pressure to a vacuum insulation panel.

However, Stroobants fails to cure the deficiencies of Tanimoto because, at a minimum, Stroobants also fails to teach or suggest a configuration in which a border region seal has a shape that corresponds to the periphery of a core member, or that the entire portion of first and second enveloping members is heated and fused either to the core member or to the other enveloping member as recited in claim 27.

Nonetheless, the Examiner contends on page 4 of the Office Action mailed August 11, 2009, that it would have been obvious to apply pressure and heat to the envelope and core of Tanimoto in view of Stroobants in order prevent wrinkles and the envelope will become bonded to the core material.

Contrary to the Examiner's assertion, Stroobants does not disclose or suggest heating and fusing the entire portion of first and second enveloping members. Rather, Stroobants discloses, as shown in FIG. 1 and FIG. 2, insulating foam that is sealed in a flexible vessel. (See, Stroobants col. 2 lines 15-20). The insulating foam is uniform in thickness and is sealed on all sides by the flexible vessel, (see, FIG. 1 and 2). "The evacuated insulation panels of the present invention are made by enveloping an open celled insulating foam in a substantially gas impermeable flexible vessel, evacuating the whole and sealing, whereby the panel is compressed to a thickness of 10 to 90% of its initial thickness during or after evacuating and sealing," (see col. 2, lines 15-21). As such, it is clear that Stroobants does not teach or suggest any heating and

sealing of the flexible vessel to the insulating panel. The flexible vessel covers the insulating foam but there is no teaching or suggestion in Stroobants that that the flexible vessel is heated and sealed in all portions, as recited in amended claim 27. In other words, Stroobants teaches placing a foam insulating in a bag that is sealed on all four edges, but does not teach or suggest that the part of the bag that covers the insulating foam is heated and fused to the insulating foam.

Therefore, neither Tanimoto nor Stroobants, either alone or in combination, teach or suggest all of the elements of claim 27.

Accordingly, claim 27 is allowable. Furthermore, claims 8-14, 18 and 19 depend from and further define the subject matter of claim 27 and therefore are also allowable.

**Tanimoto**

Claim 19 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tanimoto. Applicants respectfully disagree. As discussed above, in reference to the rejection of independent claim 27 under 35 U.S.C. § 102(b), Tanimoto fails to disclose a configuration “wherein the first and second enveloping members are heated and pressed to seal the entire core member between said first and second enveloping members. . . wherein said border region seal has a shape that corresponds to the periphery of the core member, and wherein the entire portion of the first and second enveloping members adhering to each other is heated and fused,” as recited in claim 27.

Therefore, claim 27 is allowable over Tanimoto. Furthermore, claim 19 depends from and further defines the subject matter of claim 27 and therefore is also allowable.

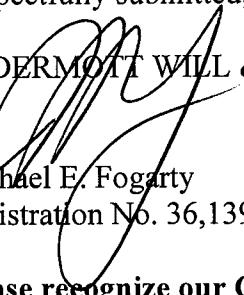
In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this

Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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